

# Tucson student successful

By Michelle Morrey

We've all been warned of the hazard of waiting until the night before a test to cram. For Diane Burns, it is no hazard and her 3.85 grade point average is proof of that.

Burns said she usually studies one night before a test but always keeps her notes organized.

"I'd glad I came here," Burns said. "To me, success in college is largely how you play your cards. I have found out that who your professors are really make a difference. I was always careful who I got for my professors. I didn't want an easy one, I just wanted a teacher to be fair."

Burns said she asks other good students who have already had the courses what professors to avoid. "It's not so much picking the good

ones, as it is avoiding the bad ones," she said.

Burns, 21, is a senior animal science major from Tucson, Ar. She came to Texas A&M hoping some day to attend veterinary medicine college because Arizona does not have one. Burns chose A&M over the other 20 vet schools in the country because her chances were better than at other schools.

After she graduates in May, Burns must establish state residency before applying to vet school. She will have to work for one year. Burns said during that year she would like to train horses.

At this point, she is not certain she will apply for vet school. She said she will decide after working for one year.

Her high GPA enables her to participate in the Undergraduate Fellows Program at Texas A&M.

Burns' research is an evaluation of the gross energy of mare's milk. Simply put, she is figuring the calories of mare's milk.

She said not much research has been done on this in the United States. But Russia has done considerable research on it. The Russians ferment the milk and call it kumiss. They use it to treat whooping cough and tuberculosis.

Burns said she doesn't think it will ever be used for that in the United States.

"It's nutrition research for the horse," she said. "We're trying to determine what normal physiology is for the horse so we can be most efficient in feeding practices and management."

She is the president of the Horsemen's Association and is an agriculture council representative for the Saddle and Siroin Club.



Diane Burns, senior animal science major from Tucson, Arizona receives a Senior Merit Award from College of Agriculture Dean H. O. Kunkel.

Photo by Julie Smiley.

# Researcher reflects on vitamin discovery

By Jane Lyon

*(Editor's note: This story was written last semester for The Agriculturist. On March 18, 1980, Fred Hale died at the age of 79.)*

The year was 1918 and Fred Hale was a freshman at Texas A&M University majoring in animal husbandry. A decade later he would pioneer the discovery of the effect of maternal vitamin-A deficiency in embryonic development. His experiments were conducted on swine.

Now at age 79 and settled in his new office in the Kleberg Animal Science building, Hale recalled his experiments that led to the discovery which would be of "incalculable value to the human race," as described by A. C. Scott, Sr., chairman for the Council on Scientific Work in 1937.

"We worked on this from 1928 until we obtained all our information in about 1937," Hale said. Actual work began when a Duroc gilt was fed a vitamin-A deficient ration for a period of 160 days before, and for the first 30 days after breeding. In 1932 she farrowed a litter of 11 pigs, all of which unexpectedly were born without eyeballs.

"We didn't know what we were going to get," Hale said. "We knew we would get something because literature was full of evidence that vitamin-A deficiencies would cause an eye disease."

But all previous research had been done on individuals from birth to maturity. No one had ever studied the effects of vitamin-A deficiency on embryos, Hale explained.

Further experiments followed in order to duplicate and prove the first. In one experiment, Hale said he continued the vitamin-A deficient diet even after the first 30 days after breeding. The gilt failed to farrow at the end of the normal gestation period. A postmortem examination indicated the letter had perished at an early stage, followed by resorption of the fetuses.

Hale explained that if some vitamin-A was not given to the gilts 30 days after breeding, then resorption would occur. Thirty days without vitamin-A was long enough to allow defects in the facial tissue to take place.

Some pigs were also born with cysts on the head and back, extra ear-like growths and cleft lips and palates, Hale said.

After his discovery, Hale spoke before the American Journal of Ophthalmology about his findings. In their publication about Hale's work in 1935, they suggested that "many of the eye weaknesses which we suffer today may be due to maternal vitamin-A deficiency. Perhaps we have been forcing our spinach on the wrong victims; it ought to be administered to the mothers instead of the children."

Hale received widespread recognition for his work.

"It's amazing how information of this type reaches all over the world," he said. "We even had a letter from China commenting about my research."

Even now, every once and awhile, Hale receives requests for copies of his original publication explaining his research.

# Cotton pageant: traditional event for 45 years in Texas A&M history

By Bonnie Helwig

King and Queen Cotton will appear again on the Texas A&M University campus, as they have done each spring for the past 45 years, during the annual Cotton Pageant, sponsored by the Agronomy Society.

This year's contest will feature 82 couples. They will be sponsored by organizations and dorms on campus, A&M mother's clubs, A&M former student groups and other colleges.

From its beginning with 60 couples in 1932, the number of court members grew as high as 200 couples in 1950.

Jamey Douglas, social secretary of the Agronomy Society and chairman of the event, said the contestants were judged on "grace, poise and beauty."

Pageant and Ball origins can be traced to the school year 1930-31, when A&M Dean of Agriculture E. J. Kyle teamed with district agent Sterling C. Evans of the Texas Agriculture Extension Service to develop an event to promote interest in cotton production and use.

The first show was held in 1932 under the direction of Mrs. John P. Wheeler. Mrs. Wheeler recruited young ladies from Bryan and College Station to serve as models in the show.

By 1935, contestants were designing and making their

own gowns. Over the years, gowns designed in Paris, New York, Hollywood and other clothing capitals of the world have been modeled during the pageant.

The forming of the court of the King of Cotton was an integral part of the festivities. The Agronomy Society elects a king and eight dukes from its members. The person selected King Cotton is usually an active member of the club, said Douglas.

This year's King Cotton is Zach Yanta, president of the Agronomy Society.

Originally, the profits from the Cotton Pageant and Ball were used for a fellowship to send the three agronomy seniors across the United States and to foreign countries.

In 1956, the annual study tour for all agronomy students replaced the fellowship.

The money earned this year will be used to send agronomy students on a tour of the Midwest and to state and national conventions, Douglas said.

Randy Miles, adviser to the club, said students were entirely responsible for coordination of the pageant.

"This is a complete club effort, with a chairman and assistant and nine committees, for all have specific functions."

This year's pageant will begin on April 11 with a square dance in the Zachry Engineering Center. The Pageant and Ball will be April 12.

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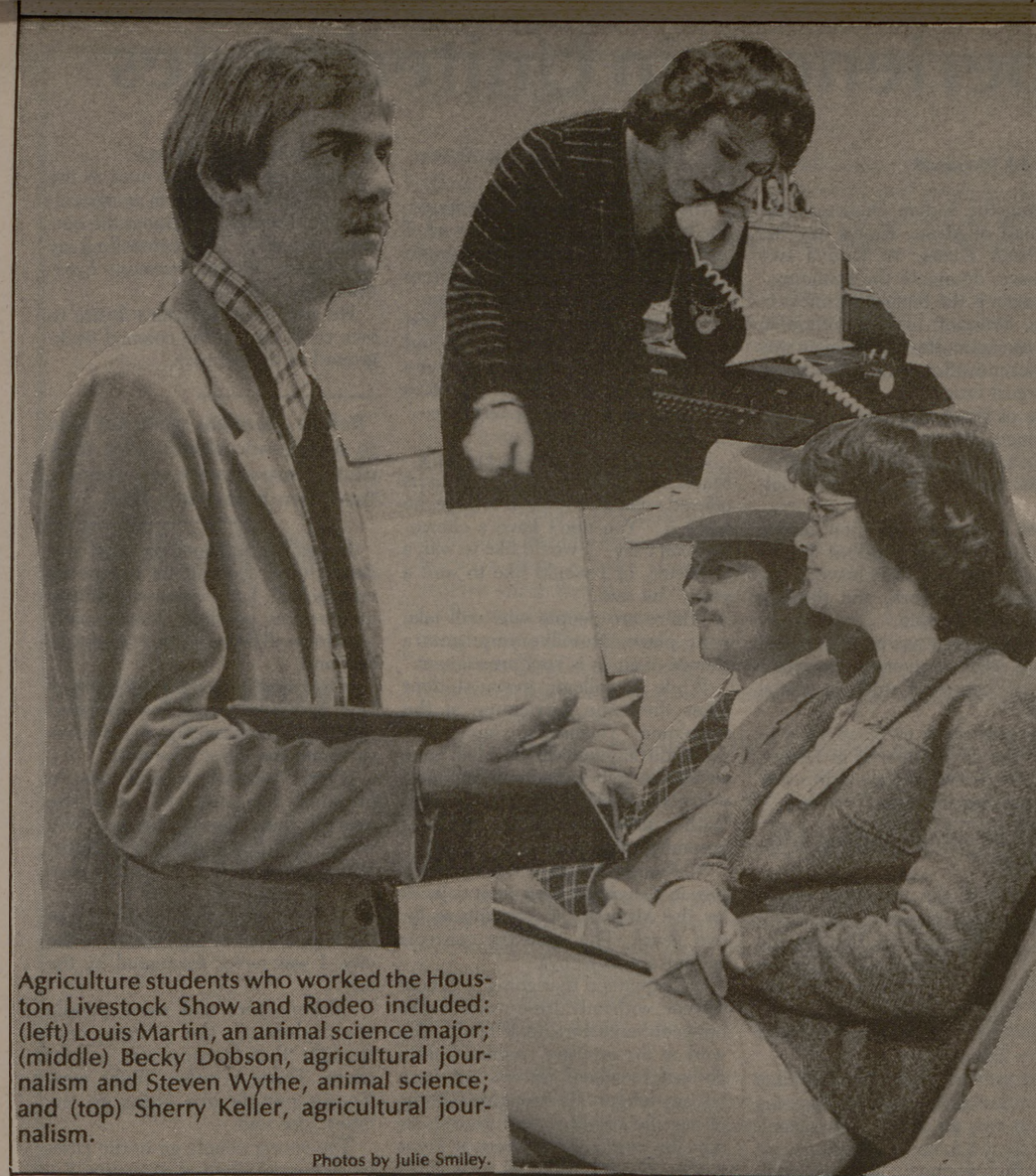
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Agriculture students who worked the Houston Livestock Show and Rodeo included: (left) Louis Martin, an animal science major; (middle) Becky Dobson, agricultural journalism and Steven Wythe, animal science; and (top) Sherry Keller, agricultural journalism.

Photos by Julie Smiley.

# Stock show work is a tradition

By Martha A. Hollida

It's the world's largest livestock show and rodeo, but to students in the Texas A&M University College of Agriculture, it's a tradition.

Each year the tradition continues and more students are involved with working at the Houston Livestock Show.

"Essentially we have been sending A&M students to work since the show had its beginning. The number of students has increased as the show grows larger," said Professor Emeritus R. C. Potts.

The animal science department sent many students to assist in the livestock office. These were primarily junior and seniors majoring in animal science. There were also students from other areas of agriculture.

These students worked at the judging shows, assisted the livestock superintendents, handled the trophies and ribbons, worked with photographers, checked in livestock, provided information and worked for various cattle fitting services.

Agricultural journalism students worked in the press room. They wrote and printed press releases about the shows, interviewed contestants, provided press representatives with information concerning the show and assisted with media coverage and photography.

The students stayed for different lengths of time depending on the show schedule. They were chosen on the basis of their grades and class work.

The pay is minimum wage and the working day lasts from 12 to 16 hours, although some days require 18 to 24 hours to get the work done.

"It has to be the most worthwhile experience in my education. There's no monetary value that could be put on what I learned from working at the Houston Livestock Show. You have to admire the support that is given to the youth in Texas and the people of Houston are to be commended for their support of the show," remarked Ken Jordan, senior animal science major.

Karen Holley, a senior agricultural education major worked for J Bar S Fitting Service and said that she learned a lot by showing and fitting the cattle.

"I thought it was great experience and I enjoyed meeting all the people who organize it and those who compete in the shows. The people you meet are some of the most important people in the purebred cattle industry," said Louis Martin, a junior animal science major.

"You get to use the things you've learned in class. It's a chance to work with the people in industry and learn from them. It's also gratifying to know that your working for the Houston Livestock Show and to be a part of that production," said Julie Smiley, an agricultural journalism major.

Gwen Gates, who worked for LaRue's Cattle Fitting Service, said that the job contacts and the meeting the people make it worth the long hours.

# Sugar causes tooth decay

By Julie Smiley

Sugar in health and food additives in bakery products were subjects at a recent Texas Human Nutrition Conference at Texas A&M University.

The conference, co-sponsored by the Experiment Station and the College of Agriculture at Texas A&M, drew both professionals in nutrition and students to the two-day meeting.

Dr. G. Norris Bollenback, scientific director for the Sugar Association, Inc., in Washington, D.C., talked on sugar in food.

The 1977 report made eight accusations against sugar as it affects health. Included in the eight were tooth decay, increases of obesity, diabetes and cardiovascular disease and displaced nutrients in the diet. During the past three years, accusations were narrowed to one — sugar causes tooth decay. Bollenback said the Food and Drug Administration recently reports that sugar is safe for human consumption except it may increase tooth decay.

The importance of enriched bread was stressed by Dr. Robert Cotton of IIT Continental Bakery, Co., Inc. He said enrichment is one of the greatest factors in nutrition today, a quiet miracle.

He said the object of weight reduction and control is to balance food intake with energy expenditure, but bread should not be ruled out as weight-reducing food. Enriched bread contains protein, vitamins and minerals and is less expensive than meat as a protein source, although bread is not complete protein as is meat.

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